

Patent Claims

1. Thermoplastic elastomers on the basis of a PP/EPDM blend with cross-linked EPDM phase and syndiotactic polypropylene as viscosity promoter.
2. Thermoplastic elastomers, comprising:
 - ethylene propylene terpolymers
 - isotactic polypropylene
 - syndiotactic polypropylene
 - mineral filler material
 - mineral oil
 - cross-linking catalyst.
3. Thermoplastic elastomers as defined in claim 2, wherein the ter-component in the ethylene propylene terpolymer is selected from the group 1,4-hexadiene, dicyclopentadiene, or ethylidene norbornene.
4. Thermoplastic elastomers as defined in claim 2, wherein the isotactic polypropylene is selected from the group of the polypropylene homopolymers and/or the polypropylene copolymers.

5. Thermoplastic elastomers as defined in claim 2, wherein the mineral filler materials are selected from the group calcium carbonate, talcum or kaolin.
6. Thermoplastic elastomers as defined in claim 2, wherein the mineral oils are selected from the group of naphthene-based or paraffin-based solvents.
7. Thermoplastic elastomers as defined in claim 2, wherein the cross-linking catalyst is selected from the group tin-(II)-chloride or salicylic acid.
8. Thermoplastic elastomers as defined in claim 2, wherein the alkyl phenol resin is selected from the group octylphenol and/or nonylphenol.
9. Thermoplastic elastomers as defined in claims 2 and 3, wherein the ethylene propylene terpolymer share in the reaction mixture is between 20 and 50 parts.
10. Thermoplastic elastomers as defined in claims 2 and 4, wherein the share of isotactic polypropylene in the reaction mixture is between 10 and 50 parts.
11. Thermoplastic elastomers as defined in claims 2 and 5, wherein the share of filler materials in the reaction mixture is between 5 and 50 parts.

12. Thermoplastic elastomers as defined in claims 2 and 6, wherein the share of mineral oils in the reaction mixture is between 10 and 50 parts.
13. Thermoplastic elastomers as defined in claims 2 and 7, wherein the share of the cross-linking catalyst in the reaction mixture is between 0.1 and 2 parts.
14. Thermoplastic elastomers as defined in claims 2 and 8, wherein the share of the alkyl phenol resin in the reaction mixture is between 0.5 and 5 parts.
15. Thermoplastic elastomer according to claim 1, wherein said elastomers have a composition as defined in claims 2 - 14.
16. The production of the thermoplastic elastomers as defined in claims 1 or 2, wherein the syndiotactic polypropylene is mixed in a first step with PP and EPDM in the intake area of a continuously operating double-screw mixer to obtain a melt with the highest possible homogeneity and, in the second step upstream of the screws, the EPDM is dynamically cross-linked by adding the cross-linking resin in connection with the catalyst.
17. The use of the thermoplastic elastomers as defined in claims 1 or 2, in particular for the substitution of rubber articles, preferably for seals used in the manufacture

of automobiles, or for above-ground construction, as well as for profiles used for damping or as buffer protection strips.